

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

CHROMAR SYSTEMS, INC., ET AL.,

Plaintiffs,

v.

ALCATEL-LUCENT S.A., ET AL.,

Defendants.

6:15-CV-163-JDL

LEAD CASE

PATENT CASE

JURY TRIAL DEMANDED

PLAINTIFFS' OPENING CLAIM-CONSTRUCTION BRIEF

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LIST OF EXHIBITS

Exhibit A: U.S. Patent No. 8,155,012

Exhibit B: U.S. Patent No. 8,942,107

Exhibit C: U.S. Patent No. 8,902,760

Exhibit D: U.S. Patent No. 9,019,838

Exhibit E: Declaration of Les Baxter

Exhibit F: Deposition of Rich Seifert (Feb. 2, 2016 (rough))

Exhibit G: Application [for U.S. Patent No. 8,155,012] (Sept. 26, 2008)

Plaintiffs Chrimar Systems, Inc. and Chrimar Holding Company, LLC (collectively “Chrimar”) are asserting the following four patents against Defendants AMX, ALE USA Inc. (f/k/a Alcatel-Lucent Enterprise USA, Inc.), Alcatel-Lucent USA, Inc., and Alcatel-Lucent Holdings, Inc.: U.S. Patent Nos. 8,155,012 (the “’012 Patent”), 8,942,107 (the “’107 Patent”), 8,902,760 (the “’760 Patent”), and 9,019,838 (the “’838 Patent”).¹ The parties dispute the meaning of terms in each of these patents, which are addressed in detail below.

BACKGROUND

This Court previously construed certain terms of the ’012 Patent in *Chrimar Systems, Inc., et al. v. Alcatel-Lucent, Inc., et al.*, No. 6:13-cv-880 (E.D. Tex.) (“*Chrimar I*”). The Court in that case also ruled on two summary-judgment motions, including ruling that certain terms of the ’012 Patent are not indefinite. The other three patents-in-suit here are related to the ’012 Patent. All four patents share, in substance, a common specification and disclose inventions related to managing devices that connect to a wired network. More specifically, they disclose identifying an “asset,” such as a computer, “by attaching an external or internal device to the asset and communicating with that device using existing network wiring or cabling.”² The patents refer to the remote device as a “remote module.”³ An asset can be managed, tracked, or identified by using the remote module to communicate information about the asset to the network monitoring equipment, or “central module.”⁴

¹ The Patents are attached as Exs. A (’012 Patent), B (’107 Patent), C (’838 Patent), and D (’760 Patent).

² **Ex. A:** ’012 Patent at 1:67–2:2. For consistency, all references to the specification will cite to the ’012 Patent.

³ **Ex. A:** ’012 Patent at 3:22–26.

⁴ **Ex. A:** ’012 Patent at 6:7–13 and 8:66–9:4.

PERSON OF ORDINARY SKILL

The Parties appear to agree that a person of ordinary skill in the art with respect to the patents-in-suit would have, at a minimum, an undergraduate degree or the equivalent in the field of electrical engineering or a related ancillary field, and one to three years of experience with data-communications networks, such as Ethernet networks.⁵ Having experience with data-communications networks, such a person would also be familiar with data-communications protocols and standards.

ARGUMENTS

The arguments set forth below in support of Chrimar's proposed constructions for the disputed claim terms are based on the legal standards governing claim construction applied, for example, in *Chrimar I*, 2015 WL 233433, at *2–3 (E.D. Tex. Jan. 8, 2015).

Eight terms are in dispute here, three of which Defendants contend are indefinite. Chrimar will respond to Defendants' indefiniteness arguments in its summary-judgment briefing on that issue. Regarding claim construction, neither the plain language of the claims, the intrinsic record, nor the extrinsic evidence supports Defendants' attempts to rewrite the claims. In fact, the evidence demonstrates that each of Defendants' proposed constructions is incorrect and should be rejected.

⁵ **Ex. E:** Declaration of Les Baxter (hereafter "Baxter Dec.") ¶ 10; *see also* **Ex. F:** Deposition of Rich Seifert (Feb. 2, 2016 (rough)) ("Seifert Dep."), at 101:1–14.

A. The use of the infinitive “to __”⁶

Chrimar’s Construction	Defendants’ Construction
<p>No construction is necessary as the term should be afforded its plain and ordinary meaning.</p> <p>To the extent that the Court finds that construction is required, Plaintiffs contend that the plain and ordinary meaning of “to ____” in the context of these claims is “configured, made, or designed to ____”</p>	<p>The action claimed must occur to meet the limitation.</p>

Three of the patents-in-suit include apparatus and system claims that use the infinitive verb form to describe functions the claimed devices are configured to perform. Claim 1 of the ’107 Patent is exemplary. It recites (emphasis added):

A piece of Ethernet terminal equipment comprising:

an Ethernet connector comprising first and second pairs of contacts used to carry Ethernet communication signals, at least one path for the purpose of drawing DC current, the at least one path coupled across at least one of the contacts of the first pair of contacts and at least one of the contacts of the second pair of contacts, the piece of Ethernet terminal equipment **to draw** different magnitudes of DC current flow via the at least one path, the different magnitudes of DC current flow **to result** from at least one condition applied to at least one of the contacts of the first and second pairs of contacts, wherein at least one of the magnitudes of the DC current flow **to convey** information about the piece of Ethernet terminal equipment.

The claim therefore covers a “piece of Ethernet terminal equipment” configured to do certain things. Among other things, the equipment is configured to draw different magnitudes of DC current that result from at least one condition applied to at least one of the contacts, where at least one of the magnitudes of DC current conveys information about the Ethernet terminal equipment. The issue is whether, as Defendants claim, an accused device must actually perform

⁶ The infinitive “to __” terms appear in the following asserted claims: claims 1, 43, 104, and 111 of the ’107 Patent; claims 1, 69, 73, and 142 of the ’760 Patent; and claims 1, 7, 26, 40, and 69 of the ’838 Patent.

these actions to infringe or, as Chrimar contends, the claim covers a device that is configured to perform them, regardless of whether it actually does so.

Defendants' construction is based on a misunderstanding of how the infinitive "to ___" phrases are used in the claims. According to Defendants, the phrases at issue are being used as action verbs that require performance—the piece of Ethernet terminal equipment, for example, is not merely configured to draw current, it must actually be drawing current. But this is not how infinitives are used or understood. The infinitive is a verb form that serves as a noun or modifier, not as an action verb. It can be used, for example, to indicate the purpose of an action—e.g., "He went to the store to buy groceries"; as the subject of a sentence—e.g., "To be or not to be, that is the question"; or to indicate what something can be used for—e.g., "I would like a sandwich to eat." The infinitive is not used to describe an action that is actually taking place.

Thus, a claim that requires a "piece of Ethernet terminal equipment to draw different magnitudes of DC current flow" covers a piece of Ethernet terminal equipment that is configured to draw different magnitudes of DC current flow. It does not further require the equipment to be drawing different magnitudes of DC current.

Defendants are asking the Court to rewrite the claims. Adopting their proposed construction would, for example, require construing "the piece of Ethernet terminal equipment to draw different magnitudes of DC current flow" to mean "the piece of Ethernet terminal equipment is drawing different magnitudes of DC current flow." This defies basic grammar principles.⁷

⁷ By way of analogy, a claim that requires "a chair to sit in" covers a chair, regardless of whether anyone is actually sitting in it. Such a claim is broader than one that requires "a chair that is being sat in." Following Defendants' argument, a chair is not "a chair to sit in" unless someone is actually sitting it. This is nonsensical.

It is also contrary to basic claim-construction principles. As a general rule, “apparatus claims cover what a device is, not what a device does.” *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005). Further, an apparatus claim may use functional language to describe structural elements of the apparatus without introducing method steps into the claim. *See Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008). And even when an apparatus claim uses active verbs (which the claims here do not), those verbs still do not necessarily require performance of a method step. *See, e.g., Yodlee, Inc. v. CashEdge, Inc.*, 84 U.S.P.Q 2d 1594, 1597 (N.D. Cal. 2006) (“The claims simply use active language to describe the capability of the apparatuses; they do not claim the activity itself.”).

Indeed, courts have routinely ruled that functional language in an apparatus claim merely describes how the apparatus is configured to operate. The claim at issue in *Microprocessor Enhancement*, for example, recited: “A pipelined processor for executing instructions comprising . . . [a] conditional execution decision logic pipeline stage performing a boolean algebraic evaluation.” *Microprocessor Enhancement*, 520 F.3d at 1371 (emphasis added). The district court initially held that the claim required actual performance of the boolean algebraic evaluation. But the Federal Circuit reversed, holding instead that the apparatus claim “is clearly limited to a pipelined processor possessing the recited structure and capable of performing the recited functions.” *Id.* at 1375 (emphasis added). Thus, even though the claim used an active verb form—“performing”—the claim simply required the ability to perform, not actual performance.⁸

⁸ This Court has also rejected attempts to read method steps into apparatus claims. *See, e.g., Genband USA LLC, v. Metaswitch Networks Ltd.*, No. 2:14-cv-33, 2015 WL 4722185, at *5–6 (E.D. Tex. Aug. 7, 2015) (holding that the “application proxy” in an apparatus claim was

The exception to the general rule that apparatus claims cover what a device is, not what it does, is narrow and applies only in rare cases where the claim language explicitly requires the performance of the claimed function, such as by requiring “the user uses the input means.” *See IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005); *Synqor, Inc. v. Artesyn Techs., Inc.*, No. 2:07-cv-497, 2010 WL 2991037, at *31 (E.D. Tex. July 26, 2010), *aff’d*, 709 F.3d 1365 (Fed. Cir. 2013) (“The Court agrees with numerous other courts in that the holding in the IPXL case is very limited.”). This is not such a rare case.

The Court should therefore reject Defendants’ attempt to read unsupported method steps into the asserted apparatus and system claims.⁹ No construction of the infinitive “to ___” phrases is necessary, as those phrases should be afforded their plain and ordinary meanings. If, however, the Court finds that construction is required, each phrase should be construed to mean “configured, made, or designed to ___,” in accordance with basic grammar principles concerning the meaning and use of the infinitive verb form. Such a construction is further confirmed by

configured to operate in a particular manner, but was not required to be in operation); *Alexsam, Inc. v. Best Buy Stores L.P.*, No. 2:10-cv-93, 2012 WL 4891619, at *3 (E.D. Tex. Aug. 22, 2012) (holding that functional language such as “transaction processor receiving,” “processing hub receiving,” and “the processing hub activating an account” described “the structure and capabilities of the claim components,” as opposed to “a method step for using the system”) (report and recommendation adopted, No. 2:10-cv-93, 2012 WL 4894325 (E.D. Tex. Oct. 15, 2012)).

⁹ Defendants’ proposed construction also violates the principle of claim differentiation, which holds that “the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). Numerous dependent claims require that the actions described by the infinitive verb form in the independent claims must actually be performed. Claim 12 of the ’107 Patent, for example, recites “wherein the piece of Ethernet terminal equipment is actually drawing the DC current via the at least one path.” Similarly, claim 100 recites “wherein the at least one of the magnitudes is actually conveying information about the piece of Ethernet terminal equipment.”

Chrimar's expert, Les Baxter, who has provided his analysis of each of the "to ___" phrases at issue.¹⁰

B. "current" / "current flow"¹¹

Chrimar's Construction	Defendants' Construction
<p>No construction necessary, as the terms should be afforded their plain and ordinary meaning.</p> <p>To the extent that the Court finds that construction is required, Plaintiffs contend that "current" and "current flow" mean the same thing and the plain and ordinary meaning of "current" and "current flow" is "a flow of electric charge"</p>	<p>"current" means flow of electrons.</p> <p>"current" and "current flow" have different meanings.</p> <p>"[f]or the purpose of drawing DC current" describes the features of the path and "different magnitudes of DC current flow" requires that actual current must be present.</p> <p>The dependent claims of the '107 patent are indefinite for lack of antecedent basis.</p>

Independent claims 1 and 104 of the '107 Patent include the term "current" as well as the term "current flow." They each require, for example, that the claimed device must (1) have "at least one path for the purpose of drawing DC **current**" and (2) be configured "to draw different magnitudes of DC **current flow** via the at least one path."¹² Chrimar contends "current" should be understood according to its plain and ordinary meaning, which is "a flow of electric charge." Defendants propose construing "current" to mean "flow of electrons."

The subtle difference in the parties' proposed constructions for the term "current" has no impact on the true issue in dispute; i.e., whether the term "current flow" creates a limitation

¹⁰ **Ex. E:** Baxter Dec. ¶¶ 12–40.

¹¹ The phrases "current" and "current flow" appear together (or in linked dependent and independent claims) in claims 1, 72, and 104 of the '107 Patent.

¹² Further, they each recite: "the different magnitudes of DC **current flow** to result from at least one condition applied to at least one of the contacts of the first and second pairs of contacts, wherein at least one of the magnitudes of the DC **current flow** to convey information about the [piece of Ethernet terminal equipment (claim 1)/powered-off end device (claim 104)]."

requiring that actual current must be present, as Defendants contend. Defendants continue their effort to import method steps into the claims. According to Defendants, the references to current flow, as opposed to mere current, add limitations requiring that the “different magnitudes of DC current” must actually be flowing. Again, Defendants’ proposed construction improperly rewrites the claim, changing “different magnitudes of DC current flow” to “different magnitudes of DC current are actually flowing.” Defendants are asking the Court to translate a noun into a verb. In the term “current flow,” “flow” is a noun, meaning a continuous stream of something, such as water or lava—or electrons. It is not a verb. There is no basis in the intrinsic (or extrinsic) record for altering the claim in this way.

Presumably, Defendants intend to argue that “current” and “current flow” have different meanings because they are used together in the same claim.¹³ Any implication that different terms in the same claim have different meanings is overcome, however, where “the evidence indicates that the patentee used the two terms interchangeably.” *Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010).¹⁴ In this case, the patents use the terms “current” and “current flow” interchangeably. For instance, the patent refers equally to the “current” between two devices and the “current flow” between them.¹⁵ In either case, “current” and “current flow” refer to the same thing—the flow of electric charge.

¹³ See Defendants’ Letter Br. (ECF No. 89; “Letter Br.”), at 3 (citing *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1579 (Fed. Cir. 1996)).

¹⁴ See also *Tehrani v. Hamilton Med., Inc.*, 331 F.3d 1355, 1361 (Fed. Cir. 2003) (“We agree . . . that the intrinsic evidence indicates that the patentee meant for those two terms [(‘indicative of’ and ‘representing’)] to be interchangeable and to carry the same meaning within the claims.”); *TQP Dev., LLC v. Intuit Inc.*, No. 2:12-cv-180, 2014 WL 706056, at *5 (E.D. Tex. Feb. 21, 2014) (noting that the inference of different meanings “can be overcome if the contrary evidence is strong,” and finding that “[t]he specification shows that the two verbs [(‘produced’ and ‘generated’)] are used interchangeably in the patent”).

¹⁵ See, e.g., **Ex. A:** ’012 Patent at 6:54–60 and 12:32–38; see also *id.* at 2:16–18; 7:18 and 40; 8:8–9; 8:52–53.

The Court should therefore reject Defendants’ proposed construction and construe “current” and “current flow” according to their plain and ordinary meaning. This analysis is further confirmed by Chrimar’s expert, Mr. Baxter.¹⁶

C. “BaseT”¹⁷

Chrimar’s Construction	Defendants’ Construction
<p>No construction necessary, as the term should be afforded its plain and ordinary meaning.</p> <p>To the extent that the Court finds that construction is required, Plaintiffs contend that the proper term to be construed is “BaseT Ethernet” and its plain and ordinary meaning is “twisted pair Ethernet per the IEEE 802.3 Standards (e.g. 10BaseT/IEEE 802.3i, 100BaseTX/IEEE 802.3u, and 1000BaseT/IEEE 802.3ab)”</p>	<p>10BASE-T, which requires communication over twisted pair cabling at 10 Mb/s</p>

Each of the patents-in-suit includes claims that are directed to network equipment that employs BaseT Ethernet communication signals. Claim 5 of the ’107 Patent is exemplary. It recites: “The piece of Ethernet terminal equipment of claim 1 wherein the Ethernet communication signals are BaseT Ethernet communication signals.” It is undisputed that the term “BaseT Ethernet” refers to any one of the IEEE 802.3 family of BaseT Ethernet standards, which includes at least 10BaseT/IEEE 802.3i, 100BaseTX/IEEE 802.3u, and 1000BaseT/IEEE 802.3ab.¹⁸

The issue is whether, as Defendants contend, the claims are limited to 10BaseT Ethernet networks, which operate at 10 Mb/s, as opposed, for example, to 100BaseT or 1000BaseT

¹⁶ **Ex. E:** Baxter Dec. ¶¶ 54–66.

¹⁷ The term “BaseT Ethernet” appears in claims 36, 56, and 60 of the ’012 Patent; claim 5 of the ’107 Patent; claims 1, 31, 59, 69, 72, 73, 106, 142, and 145 of the ’760 Patent; and claim 1 of the ’838 Patent.

¹⁸ **Ex. E:** Baxter Dec. ¶ 98; **Ex. A:** ’012 Patent at Page 7; **Ex. F:** Seifert Dep. at 24:1–26:8.

Ethernet networks that operate at 100 Mb/s and 1000 Mb/s respectively. There is no basis for reading such a limitation into the claims, which simply recite “BaseT Ethernet.” None refers to “10BaseT Ethernet.” In fact, claim 31 of ’012 Patent application originally had a limitation identifying the 10BaseT standard, but that limitation was dropped during prosecution and the claims that ultimately issued refer to BaseT Ethernet generally.¹⁹

Further, the specification states that certain steps must be taken to avoid interference, “for example, when the invention is used with an Ethernet 10BASE-T network.”²⁰ By stating that steps must be taken when the invention is used with a 10BaseT Ethernet network, the patent clearly implies that it can also be used with other BaseT Ethernet networks. Similarly, the specification states: “The system is particularly suitable for high-frequency networks such as Ethernet operating at speeds of 10 megabits per second (Mb/s) and higher. For purposes of this invention the term ‘high frequency information’ means the band of frequencies needed to carry data at 10 Mb/s or more.”²¹ Thus, the specification explicitly contemplates use within networks operating at speeds greater than 10 Mb/s, which would include, at least, 100Base-T and 1000Base-T Ethernet networks.

Defendants, however, are apparently reading the specification’s references to the use of a 10BaseT system as a limitation into the claims. This is improper for at least two reasons. First, limitations from an embodiment should not be read into a claim. *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1328 (Fed. Cir. 2015) (“[T]his court has repeatedly cautioned against importing limitations from an embodiment into the claims.”). Second, Defendants ignore the language stating that steps must be taken, “for example, when” the invention is used in a 10BaseT system

¹⁹ **Ex. G:** ’012 Patent Application (Sept. 26, 2008), at 40.

²⁰ **Ex. A:** ’012 Patent at 12:9–22 (emphasis added).

²¹ **Ex. A:** ’012 Patent at 12:1–6 (emphasis added).

and that the system can be used in systems with operating speeds greater than 10 Mb/s. Adopting Defendants’ construction would improperly negate these disclosures. *See, e.g., Packless Metal Hose, Inc. v. Extek Energy Equip. (ZHEJIANG) Co.*, No. 2:09-cv-265, 2013 WL 682845, at *6 (E.D. Tex. Feb. 22, 2013) (rejecting proposed claim construction that contradicted the specification).

The Court should therefore reject Defendants’ proposed construction and hold that “BaseT Ethernet” should be understood according its plain and ordinary meaning; i.e., “twisted pair Ethernet per the IEEE 802.3 Standards (e.g. 10BaseT/IEEE 802.3i, 100BaseTX/IEEE 802.3u, and 1000BaseT/IEEE 802.3ab).”²² This analysis is further confirmed by Mr. Baxter.²³

D. “at least one [electrical, voltage, impedance] condition” / “at least one condition applied”²⁴

Chrimar’s Construction	Defendants’ Construction
No construction necessary, as the term should be afforded its plain and ordinary meaning.	<p>“condition” without a modifier such as voltage is indefinite.</p> <p>Applying a voltage condition means applying a voltage</p>

The ’107, ’760, and ’838 Patents include claims covering Ethernet equipment with a path configured to draw different magnitudes of DC current, where the different magnitudes of current result from at least one “condition” applied to at least one of the contacts on the equipment. Claim 1 of the ’107 Patent is again exemplary. It states, in relevant part (emphasis added):

²² Further, if Defendants are attempting to import a limitation into the claims that requires actual communication, as opposed to the ability to communicate, their construction should be rejected for that reason, as well. There is no basis in the claims or the specification for using the term “BaseT” to add a method step to these apparatus claims.

²³ **Ex. E:** Baxter Dec. ¶¶ 94–105.

²⁴ The phrase “at least one condition applied” appears in claims 1, 104, and 107 of the ’107 Patent; claim 1 of the ’760 Patent; and claims 1 and 47 of the ’838 Patent.

. . . the piece of Ethernet terminal equipment to draw different magnitudes of DC current flow via the at least one path, **the different magnitudes of DC current flow to result from at least one condition applied to at least one of the contacts** of the first and second pairs of contacts, wherein at least one of the magnitudes of the DC current flow to convey information about the piece of Ethernet terminal equipment.

The patents also include dependent claims that define particular conditions that cause changes in the magnitude of current flow. Claim 22 of the '107 Patent, for example, depends from claim 1 and adds a limitation that requires the condition to be a “voltage condition,” and claim 23 requires an “impedance condition.”²⁵

Defendants claim the term “condition,” when used in the independent claims without a modifier, renders the claims indefinite because “there is no way to determine with any reasonable precision the scope” of the claims.²⁶ Defendants are wrong. As Chrimar will demonstrate in its responsive summary-judgment briefing, the examples of conditions recited in the dependent claims, as well as similar examples disclosed in the specification, defeat their contention that the claims are indefinite. *See, e.g., Kinetic Concepts, Inc. v. Blue Sky Med. Group, Inc.*, 554 F.3d 1010, 1022 (Fed. Cir. 2009) (finding a claim not indefinite where the specification provided several examples and the patentee submitted a declaration explaining that the ordinarily skilled artisan would have understood the meaning of the claim). In the context of

²⁵ *See also, e.g.*, voltage conditions ('012 patent, claim 83; '838 patent, claim 20); DC voltage conditions ('012 patent, claim 84; '760 patent, claim 23); a DC voltage condition between 3 and 20 volts ('760 patent, claim 97); current conditions ('012 patent, claim 85); DC current conditions ('012 patent, claim 86); a DC condition ('760 patent, claim 65); impedance condition ('760 patent, claim 25; '838 patent, claim 27); an impedance condition of at least 15kOhms ('760 patent, claim 99); a blocking condition ('838 patent, claim 46); wherein the impedance condition is coupled between certain contacts ('838 patent, claim 50); an open circuit condition (e.g., '760 patent, claim 4).

²⁶ Letter Br. at 3.

the asserted claims, a person of ordinary skill in the art would understand that the term “condition” refers to an electrical condition, such as voltage or impedance.²⁷

Further, although Defendants appear to be proposing a construction for the phrase “applying a voltage condition,” that phrase is not a term the parties are asking to be construed. The Court should therefore disregard Defendants’ statement that “applying a voltage condition means applying a voltage.”

E. “loop formed over”²⁸

Chrimar’s Construction	Defendants’ Construction
<p>No construction necessary, as the term should be afforded its plain and ordinary meaning.</p> <p>To the extent that the Court finds that construction is required, Plaintiffs contend that the plain and ordinary meaning of “loop formed over” is “a round trip path formed over [at least one of the conductors of the first pair of conductors and at least one of the conductors of the second pair of conductors]”</p>	<p>a complete circuit that includes [at least one of the conductors of the first pair and at least one of the conductors of the second pair]</p>

The phrase “loop formed over” appears in claims 1 and 73 of the ’760 Patent. Claim 1 is exemplary and recites (emphasis added):

A BaseT Ethernet system comprising:

a piece of central BaseT Ethernet equipment;

a piece of BaseT Ethernet terminal equipment;

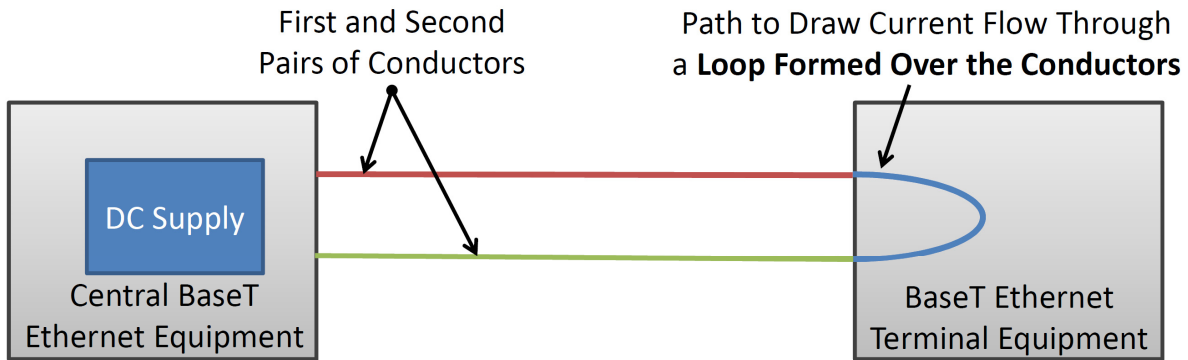
data signaling pairs of conductors comprising first and second pairs used to carry BaseT Ethernet communication signals between the piece of central BaseT Ethernet equipment and the piece of BaseT Ethernet terminal equipment, the first and second pairs physically connect between the piece of BaseT Ethernet terminal equipment and the piece of central Base T Ethernet equipment, the piece of central BaseT Ethernet equipment having at least one DC supply, the piece of BaseT Ethernet terminal equipment having at least one path to draw

²⁷ See **Ex. B**: Baxter Dec. ¶¶ 41–53 (explaining that the term “condition” refers to “an electrical condition (e.g., a voltage or an impedance condition).”

²⁸ The term “loop formed over” appears in claims 1 and 73 of the ’760 Patent.

different magnitudes of current flow from the at least one DC supply through **a loop formed over at least one of the conductors of the first pair and at least one of the conductors of the second pair**, the piece of central BaseT Ethernet equipment to detect at least two different magnitudes of the current flow through the loop and to control the application of at least one electrical condition to at least two of the conductors.

The diagram below illustrates the physical structures of the claimed system and helps visualize which of those structures are included in the claimed “loop.”



The structures recited in the claim include:

1. “a piece of central BaseT Ethernet equipment . . . having at least one DC supply,” shown at the left of the diagram;
2. “a piece of BaseT Ethernet terminal equipment,” shown at the right;
3. “conductors comprising first and second pairs [connected] between the piece of central BaseT Ethernet equipment and the piece of BaseT Ethernet terminal equipment,” shown as the red and green lines between the Central BaseT Ethernet Equipment on the left and the BaseT Ethernet Terminal Equipment on the right; and
4. a “path to draw different magnitudes of current flow,” shown as the blue line in the BaseT Ethernet Terminal Equipment at the right; and
5. “a loop formed over at least one of the conductors of the first pair and at least one of the conductors of the second pair.”

Defendants’ expert agrees with Chrimar that “loop formed over” means “a round-trip path.”²⁹ The dispute is over which of the structures illustrated in the diagram are included in the

²⁹ See **Ex. F**: Seifert Dep. at 105:19–24.

round-trip path. Chrimar contends the loop refers to (a) the at least one path of the piece of terminal equipment and (b) the conductors, which together form a round-trip path between the piece of central equipment and the piece of terminal equipment. Defendants contend the phrase “looped formed over” should be construed as “a complete circuit,” which would mean the loop must also include the DC supply in the central equipment. Defendants’ proposed construction is yet another example of their effort to obtain a ruling that the claims require an accused product to be turned on and running to infringe. Once again, however, Defendants’ proposed construction disregards the language of the claim. It is also at odds with the conventional understanding of the term “loop” as used in this context.

The claim states that the path in the terminal equipment is configured to draw different magnitudes of current through a loop. Further, it clearly states that the loop is formed over the conductors, not the conductors and the DC supply in the central equipment. Thus, although the loop may be part of a complete circuit that includes the DC supply when the system is functioning,³⁰ it is just that—merely a part of the circuit. Plainly put, the claim, itself, defines the structure of the loop. Defendants’ attempt to redefine the structure to include additional components should be rejected. *See Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002) (“[T]he claim construction inquiry . . . begins and ends in all cases with the actual words of the claim.”).

The specification further confirms that Defendants’ construction is misplaced. Describing a system like the one set forth in the claim, it states: “In accordance with conventional wiring or cabling approaches, data communication links [between central and remote equipment] generally include a pair of transmit wires . . . as well as a pair of receive wires . . . connected to each of

³⁰ As set forth above, however, the claim does not require the system to actually function. It must only be configured to do so.

[the pieces of remote equipment].”³¹ Significantly, the specification describes the pairs of wires in such a system as forming a current loop: “Each pair of transmit wires and each pair of receive wires thereby form a current loop through one of the [pieces of remote equipment].”³² Thus, the term “loop,” when used to describe the components of data-communication systems like those at issue here, described the wires connecting a remote module to a central module through a path in the remote module. If the loop connects to the DC supply in the central module, a complete circuit may be formed that includes the loop, but the central module and its component parts are not part of the loop.

Mr. Baxter supports this understanding.³³ Specifically, he offers an opinion that “[a] person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the phrase ‘loop formed over’ would have its plain and ordinary meaning, which is a round trip path formed over [at least one of the conductors of the first pair of conductors and at least one of the conductors of the second pair of conductors].”³⁴

Accordingly, the Court should reject Defendants’ proposed construction and hold that the phrase “loop formed over” should be given its plain and ordinary meaning, which is “a round trip path formed over [at least one of the conductors of the first pair of conductors and at least one of the conductors of the second pair of conductors].”

³¹ **Ex. A:** ’012 Patent at 5:20–25.

³² **Ex. A:** ’012 Patent at 5:28–31 (emphasis added).

³³ **Ex. E:** Baxter Dec. ¶¶ 75–85

³⁴ **Ex. E:** Baxter Decl. ¶ 78; *see also* **Ex. F** Seifert Dep. at 105:21–24 (testifying that he “like[s]” “Mr. Baxter’s terms, a round trip path”).

F. “path coupled across”³⁵

Chrimar’s Construction	Defendants’ Construction
No construction necessary, as the term should be afforded its plain and ordinary meaning.	“an electrical connection between [first contact and second contact]”

Claim 31 of the ’012 Patent and claims 1 and 104 of the ’107 Patent each require a “path coupled across” contacts in the claimed piece of Ethernet terminal equipment. According to Defendants, the phrase “path coupled across” means “an electrical connection between” the contacts. Of course, in general terms, there will be an electrical coupling between the contacts to permit DC current to flow. But that is not a basis for adopting Defendants’ construction. “Path coupled across,” as used in the claims, is not vague or ambiguous. Defendants’ construction does not clarify the term, nor does it refine the scope of what is covered by the claim; if anything, adopting it would risk creating vagueness and confusion.

The Court should therefore reject Defendants’ construction and hold that “path coupled across” should be read in accordance with its plain and ordinary meaning. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims.”); *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 863 (Fed. Cir. 2004) (“[M]erely rephrasing or paraphrasing the plain language of a claim by substituting synonyms does not represent genuine claim construction.”) (internal quotation marks omitted).

³⁵ The term “path coupled across” appears in claim 31 of the ’012 Patent and claims 1 and 104 of the ’107 Patent.

G. “powered off” / “powered-off Ethernet terminal equipment” / “powered-off end device”³⁶

Chrimar’s Construction	Defendants’ Construction
“Ethernet terminal equipment/end device without its operating power”	“No power is applied to the claimed equipment/device”

The ’107 Patent and the ’760 Patent have claims that require either the “Ethernet terminal equipment” or the “end device” to be “powered off.” Claim 104 of the ’107 Patent is exemplary.

It recites (emphasis added):

A powered-off end device comprising:

an Ethernet connector comprising first and second pairs of contacts, at least one path for the purpose of drawing DC current, the at least one path coupled across at least one of the contacts of the first pair of contacts and at least one of the contacts of the second pair of contacts, the **powered-off end device** to draw different magnitudes of DC current flow via the at least one path, the different magnitudes of DC current flow to result from at least one condition applied to at least one of the contacts of the first and second pairs of contacts, wherein at least one of the magnitudes of the DC current flow to convey information about the **powered-off end device**.

The issue is whether “powered off” means without operating power, as Chrimar contends, or without any power at all, as Defendants propose. Defendants’ proposal should be rejected because it renders the invention inoperable and reads embodiments described in the specification out of the claim.

The claim itself states that the “powered-off end device” is configured “to draw different magnitudes of DC current flow via the at least one path.” More specifically, the device has “at least one path for the purpose of drawing DC current”; it is configured to “draw different magnitudes of current flow”; and the different magnitudes of current flow “convey information about the powered-off device.” Thus, a “powered-off device” is not necessarily without any

³⁶ The “powered off” terms appear in claims 103, 104, 111, and 125 of the ’107 Patent and claims 72 and 145 of the ’760 Patent.

power, but is without its operating power. Because Defendants’ construction adds a limitation requiring that powered-off means no power at all, as opposed to being without its operating power, it improperly renders the claim inoperable. *See AIA Eng’g Ltd. v. Magotteaux Int’l S/A*, 657 F.3d 1264, 1278 (Fed. Cir. 2011) (“[A] construction that renders the claimed invention inoperable should be viewed with extreme skepticism.”) (quoting *Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 275 F.3d 1371, 1376 (Fed. Cir. 2002), *vacated and remanded on other grounds*, 537 U.S. 802 (2002)).

Defendants’ construction also reads embodiments of the invention described in the specification out of the claim. As the patent explains, one of the problems with prior-art methods for remotely managing assets was that the assets could not be monitored unless they were “powered-up.”³⁷ One goal of the inventions, therefore, is to provide systems that can “communicate with the device without requiring the device or the asset to be connected to alternating current (AC) power.”³⁸ A system that works even when the assets are turned off permits more consistent monitoring. It also provides a more efficient use of resources:

[U]sing network bandwidth for asset identification would limit the identification system to operating only when the asset has AC power applied. Assemblies within the asset would have to be operational in order to transmit data over the network. Requiring power to be applied to every monitored asset would limit the capability to identify all the assets connected to a network at any particular time.³⁹

The specification discloses specific embodiments of the inventions that achieve the stated goal of monitoring remote devices even when they are turned off—i.e., when they lack their operating power. For example, it describes a system “capable of identifying the existence and

³⁷ **Ex. A:** ’012 Patent at 1:58–65.

³⁸ **Ex. A:** ’012 Patent at 2:5–8.

³⁹ **Ex. A:** ’012 Patent at 3:3–14.

location of network assets without power being applied to the assets.”⁴⁰ This does not mean, however, that no power is supplied. On the contrary, monitoring may be accomplished when there is some current flow between the remote module and the system’s central module.⁴¹ Defendants’ proposed construction should be rejected because it reads such embodiments of the invention out of the claim. *See SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1369 (Fed. Cir. 2010), *aff’d sub nom. Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754 (2011) (“[A] construction that would not read on the preferred embodiment would rarely if ever be correct and would require highly persuasive evidentiary support.”).

Chrimar’s construction, on the other hand, properly defines “powered-off” to mean the piece of equipment is without its operating power. This is consistent with both the claims and the specification because Chrimar’s construction allows for some current to flow through a piece of equipment while the piece of equipment is “turned off.” At the same time, the piece of equipment may convey information to a monitoring system. It is also consistent with the way “powered off” is used to describe electrical equipment, generally. It is common to refer to devices as being “powered off” when they are in a very low power mode (i.e., when they are not in their operating mode, even though they are still receiving power through a connection to an AC power supply). A television, for example, is a “powered-off end device” when it is turned off, even though it remains connected to AC power and current still flows through some of its components to allow the remote control to turn it on. This understanding is further confirmed by Mr. Baxter.⁴²

⁴⁰ **Ex. A:** ’012 Patent at 4:65–67 (emphasis added); *see also id.* at 12:48–50 (describing a system that “provides a means for permanently identifying the location of network assets without applying power to the assets”) (emphasis added).

⁴¹ *See, e.g., Ex. A:* ’012 Patent at 5:1–6:47.

⁴² **Ex. E:** Baxter Dec. ¶¶ 106–114.

Accordingly, the Court should construe the terms “powered off,” “powered-off Ethernet terminal equipment,” and “powered-off end device” to mean “Ethernet terminal equipment/end device without its operating power.”

H. “detection protocol” / “part of a detection protocol”⁴³

Chrimar’s Construction	Defendants’ Construction
No construction necessary, as the term should be afforded its plain and ordinary meaning.	Indefinite
To the extent that the Court finds that construction is required, Plaintiffs contend that the plain and ordinary meaning of “detection protocol” is “detection scheme, rule, or procedure”	

The patents-in-suit each include several dependent claims that recite a “detection protocol.” Claim 35 of the ’012 Patent, for example, recites: “The piece of Ethernet data terminal equipment according to claim 31 wherein the impedance within the at least one path is part of a detection protocol.” Similarly, claim 72 of the ’107 Patent recites: “The piece of Ethernet terminal equipment of claim 1 wherein at least one magnitude of the DC current is part of a detection protocol.”⁴⁴

Defendants are not offering a proposed construction for “detection protocol.” Instead, they contend the term renders the claims indefinite because it has no meaning to a person of ordinary skill in the art.⁴⁵ This is curious because their own expert testified that a protocol is a series of

⁴³ The “detection protocol” terms appear in claim 35 of the ’012 Patent; claims 72 and 123 of the ’107 Patent; claim 59 of the ’760 Patent; and claim 2 of the ’838 Patent.

⁴⁴ See also **Ex. B:** ’107 Patent, claim 123 (“The powered-off end device of claim 104 wherein at least one of the magnitudes is part of a detection protocol.”); **Ex. C:** ’838 Patent, claim 2 (“The central piece of network equipment of claim 1 wherein the different magnitudes of DC current flow are part of a detection protocol.”); **Ex. D:** ’760 Patent, claim 59 (“The BaseT Ethernet system of claim 1 wherein at least one of the different magnitudes of current flow through the loop is part of a detection protocol.”).

⁴⁵ Letter Br. at 5.

procedures to achieve a desired end, and he stated that the patents teach a “proprietary data protocol” that is “used to detect certain characteristics of the remote module.”⁴⁶ There is nothing meaningless, or even unclear, about “detection protocol.” The phrase simply means a protocol for detecting.

Further, as Chrimar will fully explain in its responsive summary-judgment briefing, the phrase “detection protocol” does not render the claims indefinite.

CONCLUSION

For the reasons more particularly identified in this brief, the Court should reject Defendants’ repeated attempts to rewrite the claims and construe the disputed terms as Chrimar has set forth above.

⁴⁶ **Ex. F:** Seifert Dep. at 100:7–9, 104:10–19.

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was filed electronically on February 4, 2016, in compliance with Local Rule CV-5(a) and has been served on all counsel who have consented to electronic service.

/s/ Justin S. Cohen

Justin S. Cohen